

energizing a propulsion unit located on said body to propel the seismometer through the fluid; and receiving a command in propulsion unit from a control unit for directional control of said propulsion unit.

17. The method of claim 16 further comprising the step for:

sending a responsive directional command from the navigation system to the control unit based on the current location of the body and the desired location.

Remarks

The drawings were objected to under 37 CFR 1.84(p)(5). An amendment to the specification is included herewith to address the objection to the drawings. The Examiner stated that reference numerals 12, 20, 22, 24, 30, 32, 34, 36, 38, 40, 46, 48, 50, 52, 63 and 64 were not mentioned in the description. Applicant respectfully submits that reference numerals 30, 32, 34, 36, 38, 40 appear on page 5, lines 11 and 12 of the description, reference numeral 54 appears on page 8 line 10 of the description and reference numerals 63 and 64 appear on page 8 line 12 of the description. Reference numerals were added in the two paragraphs which replace the first paragraph on page 6 of the specification. No new matter was added. The two paragraphs added reference numerals 20, 22, 24, 46, 48, 50 and 52 to the specification.

Claim 11 has been amended to overcome the Section 112 objection. Claim 17 was amended to correct a typographical error.

The Examiner also stated that "the drawings must show every feature . . . therefore the propulsion system acting to couple the apparatus to the ocean floor must be shown or the feature(s) cancelled from the claims. Applicant respectfully submits that the propulsion system is shown in Figures 1 and 2 and described in the specification on page 3 lines 15-18, "A mechanical system of fins is used to propel the MOBS instruments through the water column. Upon arrival at the ocean bottom, the fins are used to dig into the ocean bottom to improve coupling of the MOBS instruments to the sea floor." Thus, applicant believes the claimed feature is shown in the figures and does not need to be cancelled from the claims.

Claims 1-20 were rejected under 35 USC 103(a) as being unpatentable over Schmidth et al (Pat. 5,894,450) in view of Ambs (Pat. 6,002,648). The applicant respectfully traverses the 103 rejection as follows: The Ambs reference is not a valid reference pursuant to 35 USC 103(c) as it is "Subject matter developed by another person . . . where the subject matter and the claimed invention were, at the time the invention was made, owned by the same person or subject to an obligation of assignment to the same person. In this case, Baker Hughes Inc. is the common owner.

Moreover, Applicant disagrees that it would have been obvious to combine Schmidt and Ambs to make a system more versatile. Applicant disagrees that it would be obvious to use the propulsion fins for coupling and requests a reference showing the teaching or suggestion of this feature. Applicant disagrees that it would have been obvious to couple either the Schmidt array or Ambs detecting device to the ocean floor for the purpose of detecting seismic information from a closer range requests a reference showing the teaching or suggestion of this feature.

Thus it is believed that the claims are patentably distinct over the references cited by the Examiner. Pursuant to 37 CFR 1.121, a marked-up set of amended claims showing changes is attached on a separate page.

Respectfully submitted,

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Version with Markings to Show Changes

Any number of MOBS instruments can be deployed at one time from a survey vessel or surface support ship. As shown in **Figure 4**, the MOBS are independently controlled so that they can propel themselves or swim using fins **14**. The MOBS swim in formation or individually to and from the sea floor and swim to return to a surface support vessel without interfering with each other. A flight control system **49** is located on the surface support ship which tracks each MOBS instrument and directs each MOBS individually to prevent collisions. The flight control system directs each MOBS to the surface for retrieval by a surface support ship **48** or in swimming to a new survey location after a completed survey. The surface support vessel navigation system communicates with each MOBS and a sea floor navigation system via acoustic transponders **46**, **50** and **52** to locate each MOBS and direct it to the desired location. The MOBS are identifiable by virtue of unique digital interrogation addresses which are communicated between the surface support ship and each MOBS. The surface support ship **48** locates and directs each individual MOBS controlling each MOBS descent and ascent to and from the ocean floor, much like an air traffic controller directs the landing and take off of multiple aircraft. In an alternative embodiment, two surface support vessels communicates directly with each MOBS and eliminates the sea floor transponder.

As shown in **Figures 2 and 5**, each MOBS fin **14** preferably has a triangular shape with three sides **20**, **24** and **22**. The vertical side **22** is preferably wider than the thickness dimension between the MOBS top **18** and bottom **16**, so that the fins extends beyond the MOBS bottom and top to enhance digging into the ocean floor.

1 11. A method for deploying a seismometer comprising the steps for:

2 placing a hydrodynamically efficient shaped body containing a seismic device

3 into [a fluid such as sea] water above an ocean bottom;

4 energizing a propulsion unit located on said body to propel the seismometer

5 through the fluid; and

6 receiving a command in propulsion unit from a control unit for directional

7 control of said propulsion unit.

1 17. The method of claim 16 further comprising the step for:

2 send[s]ing a responsive directional command from the navigation system

3 to the control unit based on the current location of the body and the

4 desired location.